

What is claimed is:

1. An overhead cable comprising:

a tension-bearing core;

a conductive layer arranged at an outer

5 circumference of the core; and

an outermost layer constituted by twisting together a plurality of segment strands, and having a spiral groove along the longitudinal direction in the outer circumferential surface region of each boundary  
10 portion of adjoining segment strands, wherein

in the contour of the cross-section of said outermost layer, each groove comprises an arc-shaped curve having a predetermined radius R centered about a vertex of a regular polygon and each part between  
15 adjoining grooves comprises a straight line or an arc-shaped curve which is concave with respect to said straight line.

2. An overhead cable as set forth claim 1, wherein a diameter  $d$  of a circle circumscribing the vertex of the  
20 regular polygon is within a range from 12.8 mm to 42.6 mm.

3. An overhead cable as set forth claim 2, wherein said regular polygon is made within a range from a regular 12-sided polygon to a regular 24-sided polygon.

25 4. An overhead cable as set forth claim 3, wherein

said arc-shaped curve is concave with respect to the straight line connecting adjoining vertexes of the regular polygon by a maximum depth D and

a ratio  $D/d$  between maximum depth D and the  
5 diameter  $d$  of circumscribing the vertexes of the regular polygon is within a range from 0.0 to 0.018.

5. An overhead cable as set forth claim 4, wherein a ratio  $H/d$  between a maximum height H from a vertex of said regular polygon to the bottom of said groove and  
10 said diameter  $d$  is within a range from 0.0045 to 0.0357.

6. An overhead cable as set forth claim 5, wherein a ratio  $H/R$  between said maximum height H and said radius R is within a range from 0.08 to 1.0.

7. An overhead cable as set forth claim 6, wherein  
15 said diameter  $d$  is within a range from 35 mm to 38 mm, the number of said segment strands is 12, and said ratio  $H/R$  is less than 0.2.

8. An overhead cable as set forth claim 6, wherein said diameter  $d$  is within a range from 35 mm to 38 mm,  
20 the number of said segment strands is 20 and said ratio  $H/R$  is less than 0.6.

9. An overhead cable as set forth claim 6, wherein said diameter  $d$  is within a range from 32 mm to 34 mm, the number of said segment strands is 16 and said ratio  
25  $H/R$  is less than 0.4.

10. An overhead cable as set forth claim 6, wherein said diameter d is within a range from 27 mm to 29 mm, the number of the segment strands is 14 and said ratio is less than 0.2.

5        11. An overhead cable as set forth claim 6, wherein said diameter d is within a range from 21 mm to 23 mm, the number of said segment strands is 14 and the ratio H/R is more than 0.5.